

Work Order ID \*105411-2, 350-591-122\*105411\*

August-01-13 11:30:38 AM

B105411

Page 1

Item ID: D350-591-122

Revision ID:

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

Required Date: 8/09/13 Req'd Qty: 4.00

Reference:

REVE Accept

\*N9000040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Cust Item ID:

Customer:

Approvals: Process Plan: MJS

Date: 13-08-01 Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2351

E

100

\*100\*

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile and type labels as per PPP D350-591-122 CHG005

0.00

0.00

DAS  
6  
9-89

13/11/15

110

\*110\*

Large Fab

Large Fab

Large Fab

Memo

1-Cut D2244-116 extrusion to 55.32" long as per Dwg D2351 using cutting table setup DT8185-G  
2-Drill extrusion per Dwg D2351 using Jig DT8230 for rivets.

0.00

0.00

13-09-24

130

\*130\*

CNC Bend 1

CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

Memo

Bend as per dwg D2351-042 using cnc bender and Folio FT 012. Use bend prog. D2351-042.

0.00

0.00

13-9-25 (4)

PTO

130890

# Work Order ID 105411

August-01-13 11:30:38 AM

\*105411\*

Page 2

Item ID: D350-591-122 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Heli-Access-Step RH  
 Start Date: 8/09/13 Start Qty: 4.00 \*4\* Cust Item ID:  
 Required Date: 8/09/13 Req'd Qty: 4.00 \*4\* Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00		27 13925		6			
150 *150* Large Fab Large Fab	Large Fab  Memo 1-Bevel Fwd and Aft end for welding 2-Weld Aft End Bracket per QSI 004 & Dwg D2351 using Welding Jig DT8033 A/RAluminum Rod 126430 3-Do not Grind Flush	0.00 0.00				4			13-10-07
160 *160* QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds  Memo	0.00 0.00				6x			13-10-07 09





Work Order ID 105411

August-01-13 11:30:38 AM

\*105411\*

Page 3

Item ID: D350-591-122

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 8/09/13 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Run Start

\*NR1\*

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

\*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170

QC5- Inspect part completeness to step on W/O

0.00

\*170\*

QC

Quality Control

Memo

0.00

6x

13-10-07

DAS  
09

180

Chemical Conversion Coat per QSI005 4.1

0.00

\*180\*

HandFinish

Hand Finishing

Memo

0.00

6

13-11-8

6x

13-10-07

190

QC7-Inspect Chemical Conversion Coat

0.00

\*190\*

QC

Quality Control

Memo

0.00

6

φ

DAS  
19

13-11-13





# Work Order ID 105411

August-01-13 11:30:38 AM

\*105411\*

Page 4

Item ID: D350-591-122

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 8/09/13 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

220

\*220\*

Large Fab

Large Fab

Large Fab

Memo

1-Rivet Leg Assembly as per Dwg D2351

2-Weld Fwd End Plate per QSI 004 & Dwg D2351

A/RAluminum Rod 123728

3-Grind end plate flush.

0.00

0.00

DAS

27

9-89

B 11 14

225

\*225\*

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

DAS

27

9-89

B 11 14

230

\*230\*

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

Memo

0.00

0.00

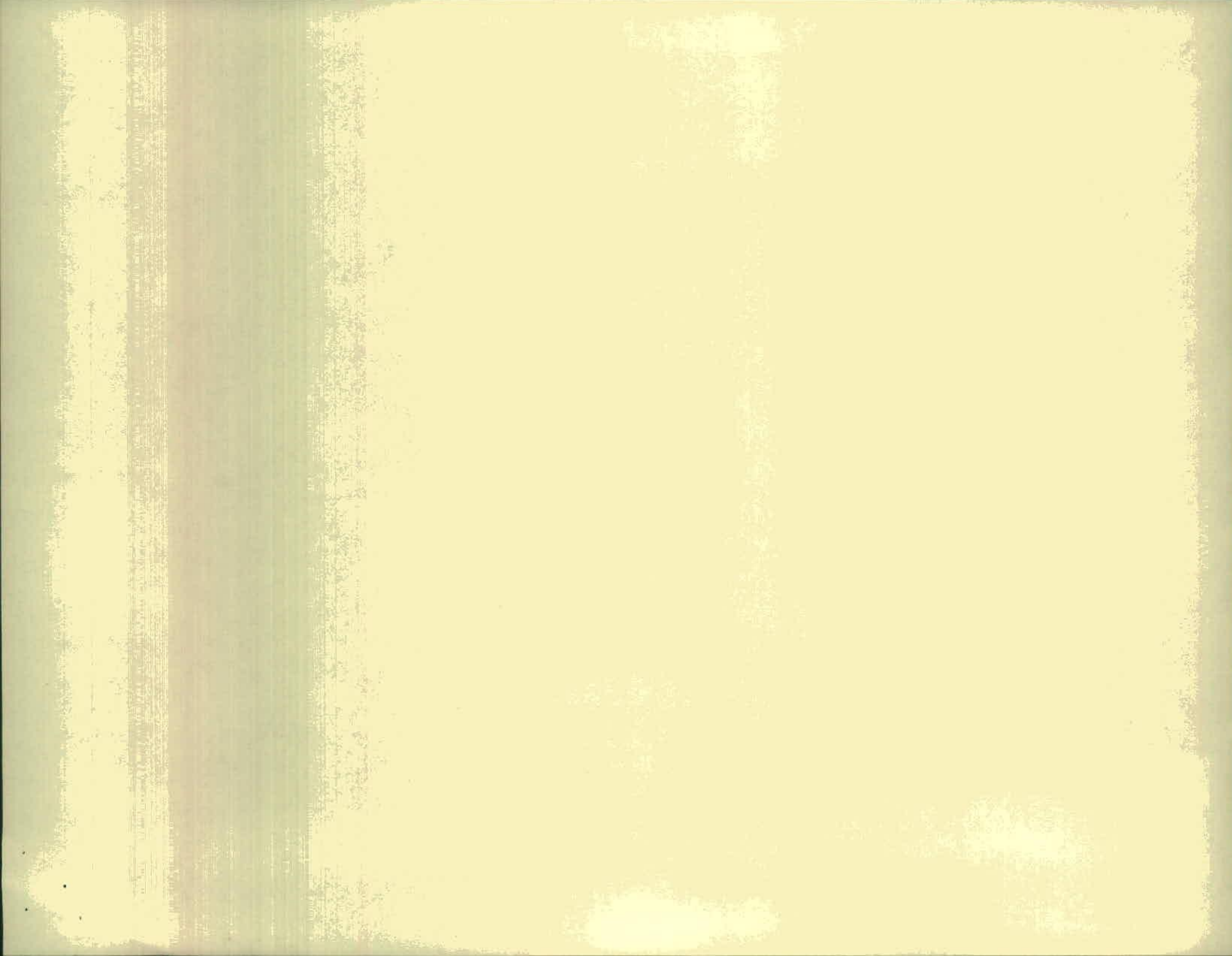
4

0

13-11-13

6

6





Work Order ID 105411

\*105411\*

Page 5

August-01-13 11:30:38 AM

Item ID: D350-591-122

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 8/09/13 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Run Start \*NR1\*

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop \*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

250

Chemical Conversion Coat per QSI005 4.1

0.00

\*250\*

HandFinish

Memo

0.00

Hand Finishing

6 0 CF 13-11-14

260

White Gloss (Ref 4.3-1) per QSI005 4.3-Alum

0.00

\*260\*

Powdercoat

Memo

0.00

Powder Coating

START TIME:

9:05

OVEN TEMPERATURE:

FINISH TIME:

9:35

3 0 13-11-15 DAS 34 9-89

270

Wing Walk as per dwg QSI005 4.4 Batch 1127141 0.00

\*270\*

HandFinish

Memo

0.00

Hand Finishing

3 0 13-11-15 DAS 34 9-89

24  
34  
24

24  
34  
24

# Work Order ID 105411

August-01-13 11:30:38 AM

\*105411\*

Page 6

Item ID: D350-591-122

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 8/09/13 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Run Start \*NR1\*

Approvals: Process Plan:

Date:

Tooling:

Date:

Stop \*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID:  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

280

QC3- Inspect Part Finish

0.00

DAS

16

9-89

13/11/15

\*280\*

QC

Memo

0.00

Quality Control

x3

PM

290

Pick Kit

0.00

\*290\*

Packaging

Memo

0.00

Packaging

3

DAS

33

9-89

13-11-15

\$

300

QC4- 100% Inspect kits for completeness

0.00

\*300\*

QC

Memo

0.00

Quality Control

DAS

6

9-89

13/11/15

3





# Work Order ID 105411

August-01-13 11:30:38 AM

\*105411\*

Page 7

Item ID: D350-591-122

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 8/09/13 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Run Start \*NR1\*

Approvals: Process Plan:

Date:

Tooling:

Date:

Stop \*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

310

\*310\*

Packaging

Packaging

Packaging

Memo

Identify and pack for shipping as per PPP D350-591-  
122 Location: \_\_\_\_\_ PPP Rev: \_\_\_\_\_

SAP

0.00

0.00

3

DAS  
6  
9.89

13/11/15 8

320

\*320\*

QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

D/13-11-15

MF  
13-11-15





# Picklist Print

August-01-13 11:30:37 AM

Page 1

Work Order ID: 105411

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:E02.10.21Re-format; Incorporated D2351-041 IPPKJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3-37A Bolt		Purchased	No			290	Each	357.0000	2	8 4		DAS 33 9-89	
-----------------	--	-----------	----	--	--	-----	------	----------	---	-----	--	-------------------	--

Location	Loc Qty	Loc Code
----------	---------	----------

FG	10	
119086	10	
ST513	347	
123355	347	

AN4-13A Bolt		Purchased	No			290	Each	2,537.0000	3	12 9		DAS 33 9-89	
-----------------	--	-----------	----	--	--	-----	------	------------	---	------	--	-------------------	--

Location	Loc Qty	Loc Code
----------	---------	----------

FG	20	
122808	20	
Return2012	8	
122416	8	
ST511	1000	
m126193	1000	
ST513	11	
111925	2	
121652	4	
125388	5	
ST514	1498	
122993	13	
123900	10	
m125709	1475	

AN960JD10 WASHER	NAS1149D0363J	Purchased	No			290	Each	0.0000	4	12 12		DAS 33 9-89	
---------------------	---------------	-----------	----	--	--	-----	------	--------	---	-------	--	-------------------	--

AN960JD416 Washer	NAS1149D0463J	Purchased	No			290	Each	0.0000	6	24 18		DAS 33 9-89	
----------------------	---------------	-----------	----	--	--	-----	------	--------	---	-------	--	-------------------	--

13-11-15



# Picklist Print

August-01-13 11:30:37 AM

Page 2

Work Order ID: 105411  
 Parent Item: D350-591-122  
 Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

D2230-1 Manufactured No

290 Each 426.0000

1

43

DAS  
33  
9-89

MOUNTING LUG

Location	Loc Qty	Loc Code
FG	4	
84136	4	
GA	40	
101834	40	
ST469	382	
101834	105	
102280	134	
33248	1	
47912	1	
48229	2	
89783	16	
95217	120	
96247	3	

101834

D2230-3 Manufactured No

290 Each 720.0000

1

43

DAS  
33  
9-89

MOUNTING LUG

Location	Loc Qty	Loc Code
FG	4	
89045	4	
ST469	716	
101450	69	
101495	108	
101911	300	
102326	100	
102758	100	
47965	4	
89782	19	
90514	1	
94957	4	
96117	7	
97815	2	
97903	2	

102326

August-01-13 11:30:37 AM

Shop Packet Print

Page 2





# Picklist Print

August-01-13 11:30:37 AM

Page 3

Work Order ID: 105411  
Parent Item: D350-591-122  
Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

✓ D2244-116  
STEP EXTRUSION

Manufactured No

110 Each

32.2105

0.5

2

*11.13.09.24*

## Location

## Loc Qty

## Loc Code

WA

-0.0000368

WA003

*B104940*

32.2104894

60307

2

80803

17.2104894

89954

13

~~3.1.34.3~~

*4*

D2582  
Hi-Skid Step Leg Ass'y

Manufactured No

Each

1.0000

4

*11.13.11.12*

## Location

## Loc Qty

## Loc Code

WA003

*B103508*

1

89203

1

*6*

D2673-34  
End Plate

Manufactured No

Each

73.0000

4

*11.13.11.12*

## Location

## Loc Qty

## Loc Code

WA003

*103377*

73

73

*6+6*

✓ D2850-2  
End Cap

Manufactured No

150

Each

4.0000

4

*11.13.10.04*

## Location

## Loc Qty

## Loc Code

WA003

*B105349*

4

68489

2

86803

2

*2*  
*2*  
*2*

August-01-13 11:30:37 AM

Shop Packet Print

Page 3





# Picklist Print

August-01-13 11:30:37 AM

Page 4

Work Order ID: 105411  
 Parent Item: D350-591-122  
 Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

D2856-400 - 720 Manufactured No

290 f 354.3392 0.6

2.4 DAS 33 107810 30 9-89

ABRASION STRIP 4" WIDE (PER FOOT)

DAS  
6  
9-89

1 new per lot

Location	Loc Qty	Loc Code
ST408	277.4052632	
101773	212.4	
99378	65.0052632	
ST410	35.46	
95159	35.46	
ST415	41.4739	
63735	0.6696	
68076	0.3149	
71164	8.46	
81875	6.398	
86905	0.9569	
89352	24.6745	

MS20600-AD4W3 Purchased No

Each 807.0000

64 11.13

Cherry Rivets

Location	Loc Qty	Loc Code
ST311	8127476	
122151	4	
122452	4	
123525	294	
124231	372	
WA003	133	
107939	133	

55

41

CR 91163-4-3

1119356

August-01-13 11:30:38 AM

Shop Packet Print

Page 4



# Picklist Print

August-01-13 11:30:38 AM

Page 5

Work Order ID: 105411  
 Parent Item: D350-591-122  
 Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

MS21042L3

Purchased

No

290

Each

7,537.0000

2

8-6

DAS  
33  
9-89

13-11-15

Nut

DAS  
6  
9-89

## Location

## Loc Qty

## Loc Code

FP001	3	
122141	3	
GA	18	
122452	18	
ST314	980	
111668	1	
117885	32	
119017	55	
119075	138	
123265	43	
M126036	711	
ST506	1536	
123900	912	
124291	624	
ST510a	5000	
M126275	1000	
M126333	4000	

126333

13-11-15

August-01-13 11:30:38 AM

Shop Packet Print

Page 5





# Picklist Print

August-01-13 11:30:38 AM

Page 6

Work Order ID: 105411

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

MS21042L4

Purchased

No

290

Each

6,622.0000

3

12 9

DAS  
33  
9-89

Locknut

## Location

## Loc Qty

## Loc Code

FP001	50	
122452	38	
8182	12	
ST314	10	
m125708	10	
st507	90	
116507	10	
125535	47	
m126073	33	
ST509	4000	
m126275	4000	
ST510a	2250	
m126333	2250	
ST518	222	
124231	222	

126275

D2732-030

Manufactured

No

290

Each

149.5000

2

105477 8 6

DAS  
33  
9-89

Rubber Cushion (Replaces P/N G13013-4)

## Location

## Loc Qty

## Loc Code

FG	74.5	
101857	18	
83560	39	
94725	12.5	
98629	5	
ST409	75	
102705	7	
104906	60	
83560	8	

13-11-15

August-01-13 11:30:38 AM

Shop Packet Print

Page 6





# Picklist Print

August-01-13 11:30:38 AM

Page 7

Work Order ID: 105411

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step RH

Start Date: 8/09/13

Required Date: 8/09/13

Start Qty: 4.00

Required Qty: 4.00

AN4-16A

BOLT

Purchased

No

290

Each

494.0000

2

86

DAS

33

9-89

13-11-15

686  
9  
570

Location

Loc Qty

Loc Code

FG

5

121541

5

ST357

8

124215

8

ST514

247

125427

200

M126073

47

ST515

200

125396

200

ST517

34

125388

34

125427

8

August-01-13 11:30:38 AM

Shop Packet Print

Page 7



**DART**

DESIGN KE	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D2351	REV. E SHEET 1 OF 2
DATE 05.11.14		TITLE HIGH FLOAT STEP ASSEMBLY	SCALE NTS
A	95.02.15	NEW ISSUE	
B	97.05.22	END CAPS CHANGED	
C	97.07.23	ADDED BUSHING AND FACING INFO	
D	98.12.17	CHANGED TO BEND, D2850 REPLACES D2357 & D2358, INCORP. DEO 9084	
E	05.11.14	UPDATE FINISHING NOTE	

**D2351 HIGH FLOAT STEP ASSEMBLY PARTS LIST**

Part No.	Description	QTY -041	QTY -042
D2351-041	High Float Step Assembly (LH)	X	
D2351-042	High Float Step Assembly (RH)		X
D2244-55.4	STEP EXTRUSION*	1	1
D2582	STEP LEG ASSEMBLY	1	1
D2673-34	STEP END PLATE	1	1
D2850-1	END BRACKET	1	
D2850-2	END BRACKET		1
MS20600AD4W3	RIVETS	16	16

\*cut per drawing

105411 MCT  
13-08-01**RELEASED**  
05.11.28 HPH  
ECN 1105**UNDER REVIEW**07.11.29 H  
PUR 1105 265

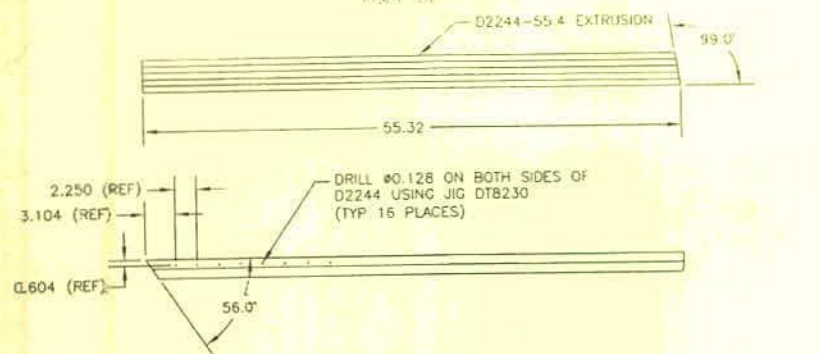
Copyright © 1995 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

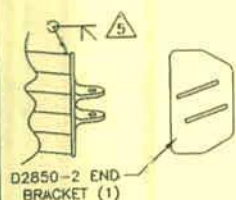
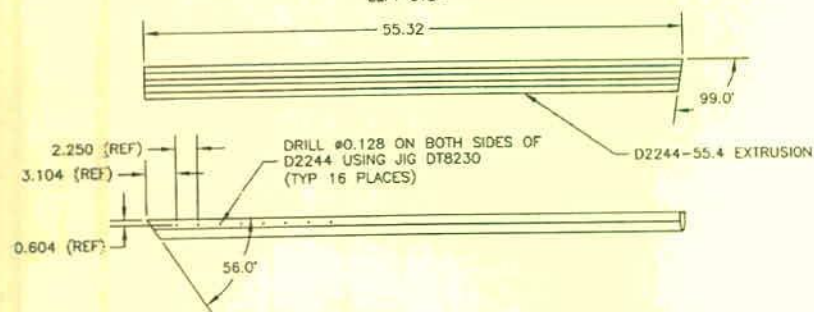




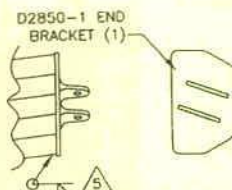
1054



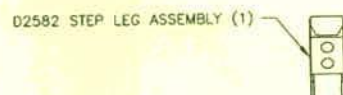
D2351-1 CUTTING/DRILLING DETAIL LEFT STEP



DETAIL A  
SCALE: 1:4

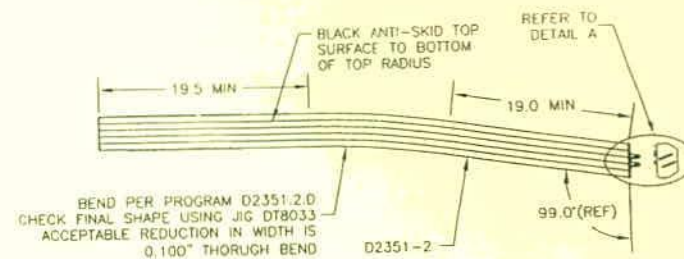


DETAIL B  
SCALE: 1:4

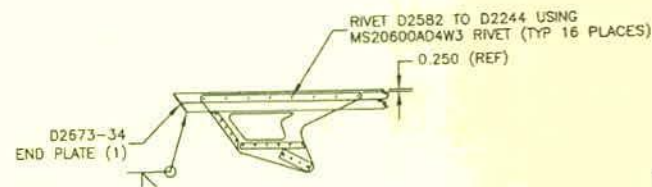
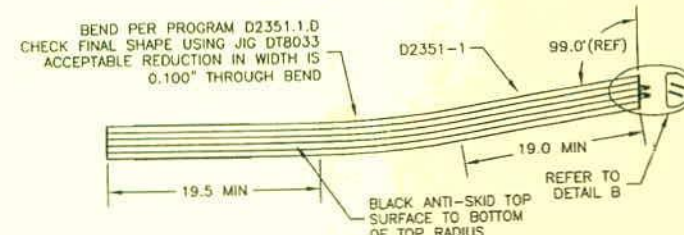


GENERAL NOTES

- 1) WELD PER DART QSI 004
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
  - 3) ALL DIMENSIONS ARE IN INCHES
  - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- CHAMFER D2244 EXTRUSION 0.075"x45" BEFORE WELDING D2850-1 OR D2850-2 IN PLACE. DO NOT GRIND FLUSH.



D2351-041 BENDING/ASSEMBLY DETAIL LEFT STEP



RELEASED  
05.11.28

UNDER REVIEW

COPYRIGHT © 1996 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DESIGN	DRAWN BY	<b>DART</b>	DART AEROSPACE LTD. WARRICK, ONTARIO, CANADA
KE	PH		
CHECKED	APPROVED	DRAWING NO.	REV. E
		D2351	SHEET 2 OF 2
DATE		TITLE	SCALE
05.11.14		HIGH FLOAT STEP ASSEMBLY	1:12





## 5. PARTS LIST

Qty -111A	Qty -113	Qty -115	Qty -117A	Qty -119	Qty -133	Part Number	Description
X						D350-591-111A	<i>Heli-Access-Step</i> ™, Long Step – High Skid
	X					D350-591-113	<i>Heli-Access-Step</i> ™, Short Step – High Skid
		X				D350-591-115	<i>Heli-Access-Step</i> ™, Short Step – Low Skid
			X			D350-591-117A	<i>Heli-Access-Step</i> ™, Pre-Flight Step
				X		D350-591-119	<i>Heli-Access-Step</i> ™, Long Step – Low Skid
					X	D350-591-133	<i>Heli-Access-Step</i> ™, Aft Maintenance Step
	1					D2310	STEP ASSEMBLY (HIGH-SHORT)
1						D2311	STEP ASSEMBLY (HIGH-LONG)
		1				D2354	STEP ASSEMBLY (LOW-SHORT)
				1		D2355	STEP ASSEMBLY (LOW-LONG)
					1	D2946-041	STEP ASSEMBLY (MAINTENANCE)
4	2	2	2	2		D2171	CLAMP
4	2	2	2	2		D2182B035	CUSHION
					4	D2230-1	MOUNTING LUG
					4	D2230-3	MOUNTING LUG
8	4	4	4	4		D2274	RADIUS BLOCK
			1			D2362-041	SUPPORT BRACKET
2	1			1		D2362-3	SUPPORT BRACKET
		1				D2362-5	SUPPORT BRACKET
2	1	1	1	1	2	D2856-400-720	ABRASION STRIP
					1	D2945	MOUNTING PLATE
2	2	2		2		AN3-37A	BOLT
					2	AN4-7A	BOLT
					4	AN4-11A	BOLT
					8	AN4-14A	BOLT
		4				AN4-16A	BOLT
8	4			4		AN4-20A	BOLT
1	1	1	4	1		AN4-22A	BOLT
4	4	4		4		AN960JD10	WASHER
10	6	2	4	6	14	AN960JD416	WASHER
		4				AN960JD416L	WASHER
2	2	2		2		MS21042L3	NUT
9	5	5	4	5	14	MS21042L4	NUT

Qty -121	Qty -122	Qty -123	Qty -124	Part Number	Description
X				D350-591-121	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
	X			D350-591-122	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
		X		D350-591-123	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
			X	D350-591-124	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
1				D2351-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1			D2351-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1		D2356-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1	D2356-042	STEP ASSEMBLY (LOW-SHORT, RH)
1	1	1	1	D2230-1	MOUNTING LUG
1	1	1	1	D2230-3	MOUNTING LUG
1	1	1	1	D2856-400-720	ABRASION STRIP
2	2	2	2	AN3-37A	BOLT
3	3	3	3	AN4-13A	BOLT
4	4	4	4	AN960JD10	WASHER
6	6	6	6	AN960JD416	WASHER
2	2	2	2	MS21042L3	NUT
3	3	3	3	MS21042L4	NUT

• COPYRIGHT © 1993 BY DART AEROSPACE LTD •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Revision: G  
Date: 08.10.06





REFERENCE ONLY

## DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER  
AND  
INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER  
REF CANADIAN STC: SH92-6  
REF FAA STC: SH967NE

For D350-591-121/-122/-123/-124/-133 steps, customers have the option of installing D2732-030 cushions under the D2230-1/-3 clamps to accommodate varying crosstube diameters and to improve fit. It is also acceptable to use longer or shorter AN4 bolts, and/or extra AN960JD416 washers under the nut to ensure 1.5 to 4 threads in safety. See Figure 1 on sheet 2 of this service instruction for reference.

For D350-591-121/-122 steps at CHG 005, D350-591-123/-124 steps at CHG 004, and D350-591-133 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:

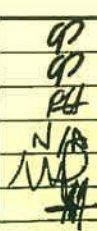
**ADD:**

Qty -121	Qty -122	Qty -123	Qty -124	Qty -133	Part Number	Description
X					D350-591-121	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
	X				D350-591-122	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
		X			D350-591-123	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
			X		D350-591-124	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
				X	D350-591-133	<i>Heli-Access-Step</i> ™, Aft Maintenance Step
2	2	2	2	8	D2732-030	CUSHION
2	2	2	2	8	AN4-16A	BOLT

The DSI-9459-011 kit is available for customers with earlier model D350-591-121/-122/-123/-124 steps. Longer AN4 bolts are provided to fasten the clamps. The DSI-9459-013 kit is available for customers with earlier model D350-591-133 steps.

Qty -011	Qty -013	Part Number	Description
X		DSI-9459-011	Rubber Cushion Kit (for -121/-122/-123/-124 steps)
	X	DSI-9459-013	Rubber Cushion Kit (for -133 steps)
2	8	D2732-030	CUSHION
2	8	AN4-16A	BOLT

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
<b>APPROVED</b>	
BY: 	
D. SHEPHERD (DE # 02)	
DATE:	09.06.24
CERT. NO.:	SH92-6
ISSUE NO.:	11

B	AN4-16A WAS -17A FOR -013/-133 KIT	CP	09.06.24
A	NEW ISSUE	CP	09.04.17
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.		DRAWING NO. REV. B DSI 9459 SHEET 1 OF 2	
DATE	09.06.24	TITLE SCALE OPTIONAL CLAMP MODIFICATIONS NTS	
<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>			





Work Order ID \*105411

August-01-13 11:30:38 AM

\*105411\*

SHIP TODAY

Page 1

Item ID: D350-591-122

Revision ID:

Item Name: Heli-Access-Step RH

Start Date: 8/09/13 Start Qty: 4.00

Required Date: 8/09/13 Req'd Qty: 4.00

Reference:

Accept

\*N9000040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Cust Item ID:

Customer:

Approvals: Process Plan: MLJ

QC:

Date: 13-08-01 Tooling:

Date: SPC (Y/N):

Date:

Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2351	E								
100		0.00							
*100*	DOCUMENT CONTROL								
DC		0.00							
Document Control	Memo								
	Photocopy bluefile and type labels as per PPP D350-591-122 CHG005								
110		0.00							
*110*	Large Fab								
Large Fab		0.00							
Large Fab	Memo								
	1-Cut D2244-116 extrusion to 55.32" long as per Dwg D2351 using cutting table setup DT8185-G								
	2-Drill extrusion per Dwg D2351 using Jig DT8230 for rivets.								
130		0.00							
*130*	BENDING MACHINE - SKIDTUBES								
CNC Bend 1		0.00							
CNC Delta 100 Bender	Memo								
	Bend as per dwg D2351-042 using cnc bender and Folio FT 012. Use bend prog. D2351-042.								

MLJ 13-11-15

3

6 4

13-09-2

13-9-25 4

PTC

